

## **ABSTRACT**

### **POLYAMIDE- AND POLYOLEFIN-BASED FIRE-RETARDED COMPOSITIONS**

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The present invention relates to fire-retarded compositions comprising, by weight, the total being 100 parts:

- 50 to 75 parts of a blend of a polyamide (A) and a polyolefin (B),

- 25 to 50 parts of a blend comprising:

  - 0.1 to 48.8 parts of a fire retardant,

  - 0.1 to 30 parts of a phosphorus-containing plasticizer,

  - 0.1 to 10 parts of a zeolite,

the total of these three products being between 25 and 50.

These compositions have a V0 or V1 classification according to the UL94-VB test when a fire test is carried out on test specimens 1.6 mm in thickness.

They have many advantages, in particular the elongation at break measured according to ISO R 527-1B exceeds 100%. As regards the impact strength, they have a non-brittle behaviour in multi-axial impact at room temperature according to ISO 6603-2 (at a rate of 7.7 m/s). They retain at least 50% of their mechanical properties after ageing for seven days at 120°C in hot air.

These compositions are useful for insulating and protecting electrical cables and optical fibres and for moulding electrical cases and connectors.